

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1. (Withdrawn) A method to elicit an effective antitumoral immune response in a patient comprising:

generating a plurality of tumor associated antigens (TAA) in a plurality of cells in the patient,

inhibiting an immune tolerance response relative to the TAA in the patient to enhance the antitumoral immune response,

activating a plurality of antigen presenting cells (APC) in the patient to further enhance the antitumoral immune response,

triggering an internal vaccine in the patient to at least partially elicit the antitumoral immune response, and

providing an external vaccine to the patient to further elicit the antitumoral immune response.

2. (Withdrawn) A method as recited in claim 1 further comprising generating the TAA in a plurality of tumor cells of the patient.

3. (Withdrawn) A method as recited in claim 1 further comprising preserving the TAA in the patient.

4. (Withdrawn) A method as recited in claim 3 wherein preserving the TAA further comprises inducing the synthesis of a plurality of stress shock proteins (SSP).

5. (Withdrawn) A method as recited in claim 4 wherein inducing

the synthesis of the SSP comprises administering indomethacin to the patient.

6. (Withdrawn) A method as recited in claim 4 wherein inducing the synthesis of the SSP comprises administering a corticoid compound to the patient.

7. (Withdrawn) A method as recited in claim 1 further comprising storing the TAA in the plurality of cells of the patient.

8. (Withdrawn) A method as recited in claim 7 wherein storing the TAA further comprises inducing the synthesis of a plurality of stress shock proteins (SSP).

9. (Withdrawn) A method as recited in claim 8 wherein inducing the synthesis of the SSP comprises administering indomethacin to the patient.

10. (Withdrawn) A method as recited in claim 8 wherein inducing the synthesis of the SSP comprises administering a corticoid compound to the patient.

11. (Withdrawn) A method as recited in claim 1 wherein generating the TAA further comprises inducing protein synthesis in the plurality of cells of the patient.

12. (Withdrawn) A method as recited in claim 1 further comprising inducing protein synthesis in the plurality of cells of the patient via administering a pharmaceutical compound to the patient.

13. (Withdrawn) A method as recited in claim 12 further comprising administering a pharmaceutical compound to the patient comprising insulin.

14. (Withdrawn) A method as recited in claim 1 wherein generating the TAA further comprises administering insulin to the patient.

15. (Withdrawn) A method as recited in claim 1 wherein generating the TAA comprises administering at least one DNA targeted chemotherapeutical to the patient.

16. (Withdrawn) A method as recited in claim 15 further comprising administering at least one DNA targeted chemotherapeutical comprising cyclophosphamide to the patient.

17. (Withdrawn) A method as recited in claim 15 further comprising administering at least one DNA targeted chemotherapeutical comprising methotrexate to the patient.

18. (Withdrawn) A method as recited in claim 15 further comprising administering at least one DNA targeted chemotherapeutical comprising fluorouracil to the patient.

19. (Withdrawn) A method as recited in claim 1 wherein activating the APC in the patient comprises administering a cytokine to the patient.

20. (Withdrawn) A method as recited in claim 19 further comprising administering the cytokine comprising granulocyte-macrophage colony stimulating factor (GM-CSF) to the patient.

21. (Withdrawn) A method as recited in claim 1 wherein inhibiting the immune tolerance response for the TAA comprises administering cyclophosphamide to the patient.

22. (Withdrawn) A method as recited in claim 1 wherein triggering the internal vaccine in the patient comprises inducing cell death

in the plurality of cells in the patient.

23. (Withdrawn) A method as recited in claim 22 further comprising inducing immunogenic cell death in a plurality of tumor cells in the patient.

24. (Withdrawn) A method as recited in claim 22 further comprising inducing immunogenic cell death in the plurality of cells in the patient via apoptosis.

25. (Withdrawn) A method as recited in claim 24 further comprising exposing the plurality of cells to cellular stress prior to inducing immunogenic cell death in the plurality of cells in the patient via apoptosis.

26. (Withdrawn) A method as recited in claim 22 further comprising inducing immunogenic cell death in the plurality of cells in the patient via autoschizis.

27. (Withdrawn) A method as recited in claim 26 wherein inducing immunogenic cell death in the plurality of cells in the patient via autoschizis comprises administering ascorbic acid to the patient.

28. (Withdrawn) A method as recited in claim 27 further comprising administering the ascorbic acid to the patient intravenously.

29. (Withdrawn) A method as recited in claim 27 wherein inducing immunogenic cell death in the plurality of cells in the patient via autoschizis further comprises simultaneously administering menadione to the patient.

30. (Withdrawn) A method as recited in claim 29 further comprising administering menadione to the patient intravenously.

31. (Withdrawn) A method as recited in claim 1 wherein providing the external vaccine to the patient further comprises inoculating the patient with the external vaccine subcutaneously.

32. (Withdrawn) A method as recited in claim 1 wherein providing the external vaccine to the patient further comprises inoculating the patient with the external vaccine via intradermal inoculation.

33. (Withdrawn) A method as recited in claim 1 wherein providing the external vaccine to the patient further comprises inoculating the patient with the external vaccine via intramuscular inoculation.

34. (Withdrawn) A method to elicit an effective antitumoral immune response in a patient comprising:

completing at least one treatment cycle, each treatment cycle comprising,

administering insulin to the patient during a preparatory treatment phase,

administering at least one DNA targeted chemotherapeutical to the patient during the preparatory treatment phase,

administering cyclophosphamide to the patient during a first intermediate treatment phase,

administering a cytokine to the patient during a primary treatment phase,

administering ascorbic acid to the patient during the primary treatment phase,

administering menadione to the patient during the primary

treatment phase, and

administering a hemoderivative composition to the patient during a secondary treatment phase.

35. (Withdrawn) A method as recited in claim 34 further comprising administering the insulin to the patient on each of days one through four of the treatment cycle.

36. (Withdrawn) A method as recited in claim 34 further comprising administering the insulin to the patient on each of days one through five of the treatment cycle.

37. (Withdrawn) A method as recited in claim 34 further comprising administering the insulin to the patient each day of the preparatory treatment phase at a daily dosage of approximately 0.3 international units per kilogram of the patient's body weight.

38. (Withdrawn) A method as recited in claim 34 further comprising administering the at least one DNA targeted chemotherapeutical to the patient on each of days one through four of the treatment cycle.

39. (Withdrawn) A method as recited in claim 34 further comprising administering the at least one DNA targeted chemotherapeutical to the patient on each of days one through five of the treatment cycle.

40. (Withdrawn) A method as recited in claim 34 further comprising administering the at least one DNA targeted chemotherapeutical comprising cyclophosphamide to the patient each day of the preparatory treatment phase at a daily dosage in a range of between

approximately 100 to 200 milligrams.

41. (Withdrawn) A method as recited in claim 34 further comprising administering the at least one DNA targeted chemotherapeutical comprising methotrexate to the patient each day of the preparatory treatment phase at a daily dosage in a range of between approximately 2.5 to 12.5 milligrams.

42. (Withdrawn) A method as recited in claim 34 further comprising administering the at least one DNA targeted chemotherapeutical comprising fluorouracil to the patient each day of the preparatory treatment phase at a daily dosage in a range of between approximately 125 to 250 milligrams.

43. (Withdrawn) A method as recited in claim 34 further comprising administering the cyclophosphamide to the patient on day five of the treatment cycle.

44. (Withdrawn) A method as recited in claim 34 further comprising administering the cyclophosphamide to the patient each day of the first intermediate treatment phase at a daily dosage of approximately 300 milligrams per square meter of surface area of the patient's body.

45. (Withdrawn) A method as recited in claim 34 further comprising administering the cytokine to the patient on each of days eight through twelve of the treatment cycle.

46. (Withdrawn) A method as recited in claim 34 further comprising administering the cytokine comprising granulocyte-macrophage colony stimulating factor (GM-CSF) to the patient on each day of the

primary treatment phase at a daily dosage in a range of between approximately 150 to 250 micrograms.

47. (Withdrawn) A method as recited in claim 34 further comprising administering the ascorbic acid to the patient on each of days eight through twelve of the treatment cycle.

48. (Withdrawn) A method as recited in claim 34 further comprising administering the ascorbic acid to the patient each day of the primary treatment phase at a daily dosage of approximately 25 grams in a solution of approximately 250 milliliters of a lactate-ringer solution.

49. (Withdrawn) A method as recited in claim 48 further comprising administering the ascorbic acid to the patient intravenously.

50. (Withdrawn) A method as recited in claim 34 further comprising administering the menadione to the patient on each of days eight through twelve of the treatment cycle.

51. (Withdrawn) A method as recited in claim 34 further comprising administering the menadione to the patient each of day the primary treatment phase at a daily dosage of approximately 250 milligrams.

52. (Withdrawn) A method as recited in claim 51 further comprising administering the menadione to the patient intravenously.

53. (Withdrawn) A method as recited in claim 51 further comprising administering menadione to the patient orally.

54. (Withdrawn) A method as recited in claim 34 further comprising administering the hemoderivative composition to the patient on each day of the secondary treatment phase.



55. (Withdrawn) A method as recited in claim 34 further comprising administering an autologous hemoderivative composition to the patient on each day of the secondary treatment phase.

56. (Withdrawn) A method as recited in claim 34 further comprising administering the hemoderivative composition to the patient on each of days fifteen, seventeen, nineteen, twenty-two, twenty-four, and twenty-six of the treatment cycle.

57. (Withdrawn) A method as recited in claim 34 further comprising administering cyclophosphamide to the patient each day of a second intermediate treatment phase at a daily dosage of approximately 300 milligrams per square meter of surface area of the patient's body.

58. (Withdrawn) A method as recited in claim 57 further comprising administering the cyclophosphamide to the patient on day thirteen of the treatment cycle.

59. (Withdrawn) A method as recited in claim 34 further comprising completing a plurality of treatment cycles.

60. (Currently Amended) A method of preparation of an autologous hemoderivative composition for use in eliciting an effective antitumoral immune response in a patient comprising:

extracting an amount of a blood specimen from the patient,  
[[and]]

adding the amount of the blood specimen to a predetermined amount of an anti-coagulant solution, thereby forming a blood specimen solution,

allowing the blood specimen solution to settle for a period of

time,

separating a supernatant of blood plasma comprising white blood cells ~~plasma-cell layer~~ from the blood specimen solution after settling,

diluting the supernatant of blood plasma ~~plasma-cell layer~~ in a dilutant, ~~forming a plasma-cell solution and~~ thereby inducing a hypotonic shock in the supernatant of blood plasma and forming a plasma-cell solution,

cooling and heating the plasma-cell solution and thereby inducing a hypothermic shock in the plasma-cell solution,

~~fractioning~~ heating the plasma-cell solution ~~by heating~~ to a predetermined temperature for a predetermined period of time, thereby ~~[[and]]~~ forming a plasma-cell fraction, and

filtering the plasma-cell fraction prior to administrating to the patient.

61. (Currently Amended) A method of preparation as recited in claim 60 further comprising extracting an amount of approximately 20 milliliters of the blood specimen from ~~[[the]]~~ a femoral artery of the patient into a predetermined amount of a heparin solution thereby forming the blood specimen solution.

62. (Currently Amended) A method of preparation as recited in claim 60 further comprising settling the blood specimen solution for approximately one hour ~~[[and]]~~ prior to separating the supernatant of blood plasma ~~plasma-cell layer~~.

63. (Currently Amended) A method of preparation as recited in

claim 60 further comprising diluting the supernatant of blood plasma ~~plasma-cell layer~~ in distilled water at a ratio in a range of approximately 3 to 4 parts distilled water per 1 part supernatant of blood plasma ~~plasma-cell layer~~, thereby inducing the hypotonic shock in the supernatant of blood plasma and forming the plasma-cell solution.

64. (Original) A method of preparation as recited in claim 60 further comprising cooling the plasma-cell solution to approximately minus twenty degrees centigrade for approximately 24 hours.

65. (Currently Amended) A method of preparation as recited in claim 60 further comprising ~~fractioning~~ heating the plasma-cell solution ~~by heating~~ to approximately one hundred degrees centigrade for between approximately 8 to 10 minutes.

66. (Withdrawn) An autologous hemoderivative composition comprising:

a plasma-cell solution cooled to approximately minus twenty degrees centigrade for approximately 24 hours, and subsequently heated to approximately 100 degrees centigrade for between approximately 8 to 10 minutes, and filtered after cooling,

said plasma-cell solution being defined by a supernatant plasma-cell layer separated from a blood specimen solution and a quantity of distilled water, and

said blood specimen solution comprising a blood specimen extracted from a femoral artery of a patient and a heparin

solution.

67. (New) A method of preparation of an autologous hemoderivative composition for use in eliciting an effective antitumoral immune response in a patient comprising:

extracting an amount of a blood specimen from the patient, wherein the blood specimen comprises a plurality of tumor associated antigens,

adding the amount of the blood specimen to a predetermined amount of an anti-coagulant solution, thereby forming a blood specimen solution,

allowing the blood specimen solution to settle for a period of time,

separating a supernatant of blood plasma comprising white blood cells and at least some of the plurality of tumor associated antigens from the blood specimen solution after settling,

diluting the supernatant of blood plasma in a dilutant, thereby inducing a hypotonic shock in the supernatant of blood plasma and forming a plasma-cell solution,

cooling the plasma-cell solution for a period of approximately 24 hours,

heating the plasma-cell solution and thereby inducing a hypothermic shock in the plasma-cell solution,

heating the plasma-cell solution to a predetermined temperature for a predetermined period of time, thereby forming a plasma-cell fraction, and

filtering the plasma-cell fraction prior to administering to the patient.

68. (New) A method of preparation of an autologous hemoderivative composition for use in eliciting an effective antitumoral immune response in a patient comprising:

generating a plurality of tumor associated antigen-chaperone complexes in a plurality of malignant tumor cells in the patient,

causing the release of at least some of the plurality of tumor associated antigen-chaperone complexes into the patient's bloodstream,

extracting an amount of approximately 20 milliliters of a blood specimen from a femoral artery of the patient into approximately 5,000 international units of heparin, thereby forming a blood specimen solution having a heparin concentration in the range of approximately 250 to 300 international units, wherein the blood specimen comprises at least some of the plurality of tumor associated antigen-chaperone complexes released into the patient's bloodstream,

allowing the blood specimen solution to settle for a period of approximately one hour,

separating a supernatant of blood plasma comprising white blood cells and at least some of the plurality of tumor associated antigen-chaperone complexes from the blood specimen solution after settling,

diluting the supernatant of blood plasma in distilled water at

a ratio of approximately 3 to 4 parts distilled water per part of supernatant of blood plasma, thereby inducing a hypotonic shock in the supernatant of blood plasma and forming a plasma-cell solution,

cooling the plasma-cell solution to approximately minus 20 degrees centigrade for a period of approximately 24 hours,

heating the plasma-cell solution to approximately 37 degrees centigrade, thereby inducing a hypothermic shock in the plasma-cell solution and releasing at least some of the plurality of tumor associated antigen-chaperone complexes into the plasma-cell solution,

heating the plasma-cell solution to approximately 100 degrees centigrade for a period of between approximately 8 to 10 minutes, thereby inducing an immunogenic release of a plurality of tumor associated antigens from the plurality of tumor associated antigen-chaperone complexes and forming a plasma-cell fraction, and

filtering the plasma-cell fraction prior to administering to the patient.

69. (New) A method as recited in claim 68 wherein generating the plurality of tumor associated antigen-chaperone complexes in the plurality of malignant tumor cells in the patient comprises inducing protein synthesis in the plurality of malignant tumor cells of the patient via administering a pharmaceutical compound to the patient.

70. (New) A method as recited in claim 69 wherein generating the plurality of tumor associated antigen-chaperone complexes in the

plurality of malignant tumor cells in the patient comprises administering a pharmaceutical compound to the patient comprising insulin.